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PCoIP

PCoIP® Remote Workstation Card

Quick Start Guide

Models: TERA2220 Dual Display Teradici PCoIP Remote Workstation Card
TERA2240 Quad Display Teradici PCoIP Remote Workstation Card

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This guide provides installation instructions for setting up the Teradici PCoIP® Remote Workstation Card and Teradici PCoIP® Zero Client.

PACKAGE CONTENTS

The package contents may include:

- TERA2220 Dual Display Teradici PCoIP Remote Workstation Card or TERA2240 Quad Display Teradici PCoIP Remote Workstation Card
- Teradici PCoIP Remote Workstation Card power button cable
- Mini DisplayPort to DisplayPort cables
- Mini DisplayPort to single-link DVI cables
- Ethernet cable
- "Teradici PCoIP® Remote Workstation Card Quick Start Guide"

SYSTEM REQUIREMENTS

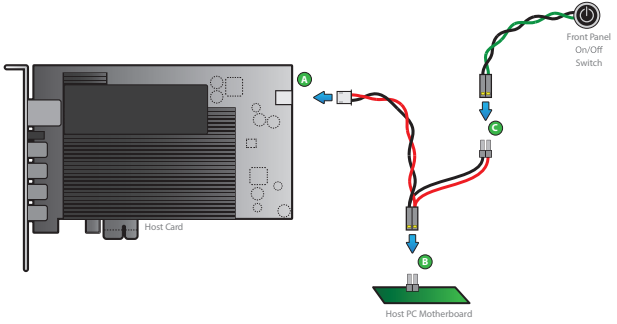
- PCI Express x1 compatible card slot Full Height, Half Length (FHHL) for TERA2240, Low Profile for TERA2220
- Host PC with 1 or 2 graphics cards
- For 2560x1600 resolution, graphics card (GPU) must contain DisplayPort ports
- PCoIP-compatible client end point (zero client recommended)
- Windows XP installations must use the **Realtek High Definition Audio Codecs** software from www.realtek.com (Downloads). Linux installations must use the **alsa-driver** package from www.alsa-project .org (Downloads).
  For more information, see KB 15134-1289 on the Teradici Support Center.

INSTALLATION STEPS

Setting up the Teradici PCoIP Remote Workstation Card

NOTE: The workstation card's MAC address is located on a sticker on the card. It is important to write down this address before installing the card in the host PC. You will need it to connect to the card using SLP host discovery.

1. Ensure the host PC is turned off and unplug the power cables.
2. Remove the chassis cover and locate an available PCIe slot.
3. Remove the expansion slot cover of the appropriate PCIe slot for the Teradici PCoIP Remote Workstation Card.
4. Insert the Teradici PCoIP Remote Workstation Card into the PCIe slot and secure the metal bracket. **WARNING**: Always power down and disconnect devices from AC power before handling them. Failure to do this can result in personal injury or equipment damage. Some circuitry on the host PC can continue to operate even though the front panel power switch is off.
5. Install the Teradici PCoIP Remote Workstation Card power button cable. This optional connection allows a remote user to reset the host PC (e.g., when the operating system is non-responsive). The illustration below shows an example of a workstation card and remote power cable.



a. Connect the white end of the workstation card power button cable to the power button cable connector on the workstation card.

b. Locate where the host PC front-panel power button cable connects to the motherboard. Disconnect the host PC's front-panel On/Off switch cable from the motherboard's header, and locate the Power On/Off signal pins. Connect the red wire on the workstation card power button cable to the positive terminal of the Power On/Off pin. Connect the black wire to the negative terminal. The negative terminal is typically a ground pin. NOTE: The location of the Power On/Off switch pins is different from one motherboard to another. See your motherboard user manual for details. If you have the connector inversely connected, the host PC will not power up.

c. If possible, connect the host PC's front-panel On/Off switch cable to the 2-pin header on the workstation card power button cable. If this is not possible, the host PC's front-panel On/Off Switch is disabled.

6. Connect the workstation card to your network using the Ethernet port.

7. Using the appropriate cables, connect the GPU to the workstation card. To get a desired resolution, all the components of your system (workstation card, GPU, zero client, and monitors) must support this resolution. In addition, the cables must be connected according to the following rules:

   - Always start with the *lowest* number GPU port of that type (DisplayPort or DVI) and work up sequentially from there.
   - **IMPORTANT!** For 2560x1600 resolution, you must use DisplayPort ports on the workstation's GPU when connecting to the workstation card.
   - If you use DVI ports on the GPU, the maximum resolution supported is 1920x1200, and the DVI-mDP cable shipped with the workstation card supports single-link data rates only. This means that if you connect the first dual-link DVI port on the GPU to a port on the workstation card, you will still only get a single-link data rate (i.e., resolutions up to 1920x1200).

8. Replace the chassis cover and reconnect power cables.

9. Start up the host PC.

10. Ensure the workstation card is installed correctly by checking that the heartbeat LED at the back of the card is continuously flashing red.

Setting up the Teradici PCoIP Zero Client

Depending on the model, a Teradici PCoIP zero client may have DisplayPort ports or DVI ports. To achieve the highest resolution supported by your system, it is important to connect the ports on the zero client correctly. The following instructions explain how to connect 2560x1600 resolution monitors to zero clients.

Teradici PCoIP zero clients with DisplayPort ports:

1. Check the GPU-to-workstation card connections to see which ports on the workstation card are used.
2. Connect port **1** on the zero client to the primary monitor using a DisplayPort cable.
3. To connect the secondary monitor, use a second DisplayPort cable to connect the port on the zero client that matches the port number used for the second GPU-to-workstation card connection.

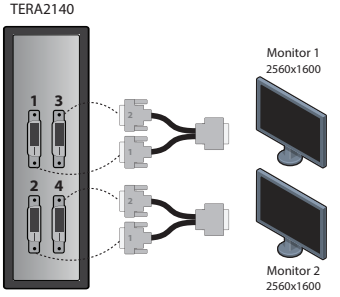
Teradici PCoIP zero clients with DVI ports:

NOTE: The two single-link male DVI connectors on the DVI-Y cable are labeled as 1 and 2. It is important to connect them in the order explained below; otherwise, a black screen will result.

1. Connect the primary monitor:
   a. Connect the #1 single-link male DVI connector on a DVI Y-cable to port **1** on the zero client.
   b. Connect the #2 single-link male DVI connector to port **3** on the zero client.
   c. Connect the other end of the DVI Y-cable to the primary monitor.
2. Connect the secondary monitor:
   a. Connect the #1 single-link male DVI connector on a DVI Y-cable to port **2** on the zero client.
   b. Connect the #2 single-link male DVI connector to port **4** on the zero client.
   c. Connect the other end of the DVI Y-cable to the secondary monitor.

The example below illustrates the correct way to connect the DVI Y-cables for 2560x1600 resolution on both monitors.

Supported DVI teamings to obtain 2560x1600 @60Hz resolutions



You can now connect the keyboard and mouse to the zero client's USB ports. Use the rear ports if they are available. NOTE: Teradici PCoIP Software Client is also available for connection on-the-go from your Mac or PC. Please see more details at www.teradici.com/workstation

ESTABLISHING A PCOIP CONNECTION

Some Teradici PCoIP zero clients are pre-configured to connect directly to a Teradici PCoIP workstation card. They can also be configured to use a third-party connection broker such as VMware View to connect to virtual desktops or PCoIP workstation cards. This section is a brief overview of the direct-to-host connect procedure.

Device Management

In order to make a configuration change on a Teradici PCoIP device, either of the following management tools can be used:

- **On Screen Display (OSD)** – Only available in pre-session when a monitor is connected to a zero client and powered on. To display the OSD, connect a monitor, mouse, and keyboard to a zero client, and then power on the units.
- **Administrative Web Interface (AWI)** – Accessible through a supported browser using the IP address of the Teradici PCoIP Remote Workstation Card or zero client. The AWI can be accessed either while the workstation card is deployed or before it is deployed by physically connecting a laptop to the workstation card using an Ethernet cable. By default, the workstation card and zero client will accept a DHCP address. If DHCP is unavailable, default IP addresses for the devices are as follows:
    - Workstation card: **https://192.168.1.100**
    - Zero client: **https://192.168.1.50**

Making the Connection - SLP

The steps below show how to use Service Location Protocol (SLP) to connect a Teradici PCoIP Remote Workstation Card to a Teradici PCoIP zero client.

Connect an Ethernet cable using one of the following methods:

- Zero client connected directly to the workstation card.
- Zero client and workstation card connected to network devices that are on the same subnet.

1. Power on the zero client, monitors, and host PC.
2. Click **Connect**.

   The SLP discovery process starts, and the message "Discovering hosts, please wait..." displays. When discovery completes, the IP and MAC addresses of any discovered workstation cards are listed on the screen.
3. Locate your new card by its MAC address and then select it.
4. Click **Connect**.

   Once connected, the display shows the host PC screen. The zero client's session LED on the front panel turns green, indicating a successful PCoIP connection.

5. If SLP discovery does not begin, ensure the session connection type is configured correctly:
   a. From the zero client's OSD, click **Options > Configuration > Session**.
   b. Click **Unlock**, enter the required credentials, and then click **OK**.
   c. Change the connection type to **Direct to Host + SLP Host Discovery**.
   d. Click **OK**.
   e. Click **Reset**.
   f. When the **Connect** button appears, click **Connect**.
   g. Go to step 4 above.

Making the Connection – Direct to Host

If the Teradici PCoIP Remote Workstation Card IP address is known or its default IP address is used, you can choose **Direct to Host** as the session connection type to ensure the Teradici PCoIP zero client connects directly to the specified workstation card.

1. From the zero client OSD, click **Options > Configuration > Session.**
2. Click **Unlock**, enter the requested credentials, and then click **OK**.
3. Change the connection type to **Direct to Host**.
4. Enter the workstation card's IP address in the **DNS Name or IP Address** field.
5. Click **OK**.
6. Click **Reset**.
7. When the **Connect** button appears, click **Connect**.

Troubleshooting and More Connection Methods

For troubleshooting tips and instructions on using other methods of connecting a Teradici PCoIP client end point to a Teradici PCoIP Remote Workstation Card, please refer to the appropriate documentation listed in the **RESOURCES** section of this guide.

ENDPOINT SELECTION

Workstation Card	PCoIP Clients
TERA2240 Quad	• TERA2140 PCoIP Zero Client • Teradici PCoIP Software Client (Windows and Mac)
TERA2220 Dual	• TERA2321 or TERA2140 PCoIP Zero Client • Teradici PCoIP Software Client (Windows and Mac)

The Teradici PCoIP® Zero Client is recommended for full functionality.

RESOURCES

- Workstation card specifications (see **Workstation solutions > Specifications** on www.teradici.com)
- Teradici Support Center (www.techsupport.teradici.com)

  Doc Center:

  - "PCoIP Zero Client and Host Administrator Guide"
  - "Using PCoIP Host Cards with VMware View"
  - "PCoIP Protocol Virtual Desktop Network Design Checklist" (also applies to host cards)

  Knowledge Base:

  - KB 15134-1438 ("What are the jumpers on the Tera2 host card used for?")
  - KB 15134-1607 ("Dual-link DVI, Single-link DVI, DisplayPort and 2560x1600 resolutions with PCoIP products.")

ADDITIONAL SOFTWARE TOOLS

Teradici PCoIP Host Software Driver (recommended). Required if workstation cards are brokered by VMware View™.
Provides features such as:

- No mouse pointer lag on higher latency networks (over 50 ms)
- User experience controls, connection information, and statistics
- In-session key sequence support to disconnect without using zero client button

Teradici PCoIP Management Console

- Manage configuration and firmware updates for large deployments of Teradici PCoIP Remote Workation Cards and Zero Clients.

SNMP Monitor

- Teradici PCoIP Remote Workstation Cards and Zero Clients support the SNMP protocol. You can use an SNMP tool to capture important read-only information such as bitrates, frame rates, and Mpps.

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